

ABSTRACT OF THE INVENTION

A heat sink layer is formed on portions of a substrate, and then an amorphous silicon layer is formed thereon. The heat coefficient of the heat sink layer is greater than that of the substrate. When an excimer laser heats the amorphous silicon layer to crystallize the amorphous silicon, nucleation sites are formed in the amorphous silicon layer on the heat sink layer. Next, laterally expanding crystallization occurs in the amorphous silicon layer on the substrate to form polysilicon having a crystal size of a micrometer.

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